O 1 P & CO 12 H

CERTIFICATE OF MAILING (37 C.F.R. § 1.8(a))

I hereby certify that this paper along with any referred to as being attached or enclosed) is being deposited with the Oniced States Postal Service on the date indicated below with sufficient postage as First Class Mail in an envelope addressed to Mail Stop RCE, Commissioner for Patents, P.O. Box 1456 Attached to Mail Stop RCE.

Date of Deposit: 0//07/2005

Signature of Person Certifying: Printed Name:

Linda Major

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Hassan MOSTAFAVI

Serial No.: 10/664,534

Filed: September 16, 2003

For:

METHOD AND SYSTEM FOR PREDICTIVE PHYSIOLOGICAL GATING OF RADIATION THERAPY Group Art Unit: 2857

Examiner: Elias Desta

Confirmation No.: 4278

## SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop RCE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with 37 CFR §§ 1.97 and 1.98, the items identified in this Supplemental Information Disclosure Statement ("IDS") are brought to the attention of the Office. The items are listed on the attached forms PTO/SB/08a and PTO/SB/08b.

The items identified in this IDS may or may not be "material" pursuant to 37 CFR § 1.56. The submission thereof by Applicants is not to be construed as an admission that any such patent, publication or other information referred to therein is material or considered to be material (37 CFR § 1.97(h)), or even qualifies as "prior art" under 35 USC § 102 with respect to this invention unless specifically designated by Applicants as such.

## 1. Timing of the Information Disclosure Statement:

This IDS is believed to be timely in that it is being submitted under 37 CFR § 1.97(b), that is (1) within three months of the filing date of the application, which is not a continued prosecution application filed under § 1.53(d) or (2) within three months of entry of the national stage as set forth in

a first Office action after filing a request for continued examination under § 1.114. Thus, no fee is required. 冈 However, if the undersigned is in error in this regard, Applicant respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and charge the fee due under 37 CFR §1.17(p) to the deposit account referenced below. П However, if the undersigned is in error in this regard, Applicant respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and a statement under 37 CFR § 1.97(e) is included below, thus no fee is required. This IDS is being submitted under 37 CFR § 1.97(c), that is after mailing of a first Office Action on the merits, but before a Final Action under 37 CFR § 1.113 or a Notice of Allowance under 37 CFR § 1.311. The fee due under 37 CFR § 1.17(p) is submitted herewith. П A statement under 37 CFR § 1.97(e) is included below, thus no fee is required. In the event that this IDS is not received before a Final Action or a Notice of Allowance, then Applicant respectfully requests that the Office consider the filing of these papers to be submitted under 37 CFR § 1.97(d) and charge the fee due under 37 CFR § 1.17(p) to the deposit account below. This IDS is being submitted under 37 CFR § 1.97(d), that is after a Final Action under 37 CFR § 1.113 or a Notice of Allowance under 37 CFR § 1.311, but before payment of the issue fee. A statement under 37 CFR § 1.97(e) is included below. The fee due under 37 CFR § 1.17(p) is submitted herewith. П This IDS is being submitted under 37 CFR § 1.97(i), that is after a Final Action under 37 CFR § 1.113 or a Notice of Allowance under 37 CFR § 1.311, but before payment of the issue fee. STATEMENT UNDER 37 CFR § 1.97(e): П Some items contained in this IDS were cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. П No item contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this statement after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this IDS. 2. Copies of the Cited Items: Copies of all of the items listed on the attached forms PTO/SB/08a and PTO/SB/08b are enclosed. Ø Pursuant to 37 CFR § 1.98(a)(2)(i), copies of the following items identified on form PTO/SB/08a under the heading U.S. Patent Documents (Item Nos. 1-15; 17-24) are not attached.

37 CFR § 1.491; or (3) before the mailing of a first Office action on the merits; or (4) before the mailing of

| $\boxtimes$ | Copies of only the following items listed on the attached forms PTO/SB/08a (Item 16) and             |
|-------------|--|
|             | PTO/SB/08b (Items 1-7) are enclosed.   |
|             | Copies of the following documents listed in PTO/SB/08a (Item Nos. *) and copies of the following     |
|             | documents listed in PTO/SB/08b (Item Nos. *) were previously cited by the Office or submitted in     |
|             | Information Disclosure Statements in related applications: See 37 C.F.R. § 1.98(d). The Examiner     |
|             | is requested to make these documents of record.  |
| 3. Con      | cise Explanation of Relevance:   |
| $\boxtimes$ | A concise explanation of relevance of the items listed on forms PTO/SB/08a and PTO/SB/08b is         |
|             | not given.   |
|             | A concise explanation of relevance of some of the items listed on forms PTO/SB/08a and               |
|             | PTO/SB/08b is in the form of an English language copy of a Search Report from a foreign patent       |
|             | office, issued in a counterpart application, which refers to the relevant portions of the references |
|             | (copy attached).   |
| 4. Rela     | ited Applications:   |

冈 Applicant(s) bring to the Office's attention the following related, co-pending application(s): U.S. Serial No. 09/178,383 filed October 23, 1998, now Patent No. 6,621,889.

### 5. Conclusion:

Citation of the above documents shall not be construed as:

- 1. an admission that the documents are necessarily prior art with respect to the instant invention:
- 2. a representation that a search has been made, other than as described above; and
- 3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

It is respectfully requested that the Examiner indicate consideration of the cited references by returning a copy of the attached forms PTO/SB/08a and PTO/SB/08b with initials or other appropriate marks. In the unlikely event that the transmittal letter is separated from this document and the U.S. Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 50-2518

referencing <u>7010733002</u>. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

Dated:

Janet D. Chance

Registration No. 55,048

Bingham McCutchen LLP

Three Embarcadero Center, Suite 1800 San Francisco, California 94111-4067

Telephone: (650) 849-4904 Facsimile: (650) 849-4800

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form1449A-PTO

JAN 1 1 2005

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of

| Complete if Known      |                    |  |  |
|------------------------|--------------------|--|--|
| Application Number     | 10/664,534         |  |  |
| Filing Date            | September 16, 2003 |  |  |
| First Named Inventor   | Hassan MOSTAFAVI   |  |  |
| Art Unit               | 2857               |  |  |
| Examiner Name          | Elias Desta        |  |  |
| Attorney Docket Number | VM7010733002       |  |  |

|           | U.S. PATENT DOCUMENTS |  |                  |                               |   |  |  |  |
|-----------|-----------------------|--|------------------|-------------------------------|---|--|--|--|
| Examiner  | Cite                  | Document Number                            | Publication Date | Name of Patentee or           | Pages, Columns, Lines,                                |  |  |  |
| Initials* | No. <sup>1</sup>      | Number – Kind Code <sup>2</sup> (if known) | MM-DD-YY         | Application of Cited Document | Where Relevant Passages or<br>Relevant Figures Appear |  |  |  |
|           | 1                     | US-4,853,771                               | 08-01-89         | Witriol et al.                |   |  |  |  |
|           | 2                     | US-4,895,160                               | 01-23-90         | Reents                        |   |  |  |  |
|           | 3                     | US-4,971,065                               | 11-20-90         | Pearch                        |   |  |  |  |
|           | 4                     | US-5,482,042                               | 01-09-96         | Fujita                        |   |  |  |  |
|           | 5                     | US-5,513,646                               | 05-07-96         | Lehrman et al.                |   |  |  |  |
|           | 6                     | US-5,588,430                               | 12-31-96         | Bova et al.                   |   |  |  |  |
|           | 7                     | US-5,619,995                               | 04-15-97         | Lobodzinski                   |   |  |  |  |
|           | 8                     | US-5,622,187                               | 04-22-97         | Carol                         |   |  |  |  |
|           | 9                     | US-5,638,819                               | 06-17-97         | Manwaring et al.              |   |  |  |  |
|           | 10                    | US-5,662,111                               | 09-02-97         | Cosman                        |   |  |  |  |
|           | 11                    | US-5,771,310                               | 06-23-98         | Vannah                        |   |  |  |  |
|           | 12                    | US-5,820,553                               | 10-13-98         | Hughes                        |   |  |  |  |
|           | 13                    | US-5,912,656                               | 06-15-99         | Tham et al.                   |   |  |  |  |
|           | 14                    | US-5,993,397                               | 11-30-99         | Branson                       |   |  |  |  |
|           | 15                    | US-6,076,005                               | 06-13-00         | Sontag et al.                 |   |  |  |  |

| FOREIGN PATENT DOCUMENTS |                  |   |                  |                                      |   |                |
|--------------------------|------------------|---|------------------|--------------------------------------|---|----------------|
| Examiner                 | Cite             | Foreign Patent Document   | Publication Date | Name of Patentee or                  | Pages, Columns, Lines,                                |                |
| Initials*                | No. <sup>1</sup> | Country Code <sup>3</sup> – Number <sup>4</sup> – Kind Code <sup>5</sup> (if known) | MM-DD-YY         | Application of Cited  Document       | Where Relevant Passages<br>or Relevant Figures Appear | T <sup>6</sup> |
|                          | 16               | WO 98/38908   | 09-11-98         | Schneider Medical Technologies, Inc. |   |                |
|                          |                  |   |                  |                                      |   |                |

| Examiner's | Date       |
|------------|------------|
| Signature  | Considered |
|            |            |

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2.0 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

<sup>\*</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \(^1\) Applicant's unique citation designation number (optional). \(^2\) See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. \(^3\) Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \(^4\) For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \(^5\) Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. \(^6\) Applicant is to place a check mark here if English language Translation is attached.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|                        |                        | -            | <u>-</u>       |      | Complete if Known      |                    |  |
|------------------------|------------------------|--------------|----------------|------|------------------------|--------------------|--|
| Substit                | ute for form1449A      | -PTO         |                |      | Application Number     | 10/664,534         |  |
|                        | INFORM                 | MATION       | חופרו מפ       | SUPE | Filing Date            | September 16, 2003 |  |
| INFORMATION DISCLOSURE |                        |              |                |      | First Named Inventor   | Hassan MOSTAFAV    |  |
|                        | STATEMENT BY APPLICANT |              |                |      | Art Unit               | 2857               |  |
|                        | (use a                 | as many shee | ts as necessar | y)   | Examiner Name          | Elias Desta        |  |
|                        | Sheet                  | 2            | of             | 2    | Attorney Docket Number | VM7010733002       |  |

| Examiner  | Cite             | Document Number                            | Publication Date | Name of Patentee or           | Pages, Columns, Lines,                             |
|-----------|------------------|--|------------------|-------------------------------|--|
| Initials* | No. <sup>1</sup> | Number – Kind Code <sup>2</sup> (if known) | MM-DD-YY         | Application of Cited Document | Where Relevant Passages of Relevant Figures Appear |
|           | 17               | US-6,144,875                               | 11-07-00         | Schweikard et al.             |  |
|           | 18               | US-6,272,368                               | 08-07-01         | Alexandrescu                  |  |
|           | 19               | US-6,296,613                               | 10-02-01         | Emmenegger et al.             |  |
|           | 20               | US-6,300,974                               | 10-09-01         | Viala et al.                  |  |
| •         | 21               | US-6,348,058                               | 02-19-02         | Melkent et al.                |  |
|           | 22               | US-6,405,072                               | 06-11-02         | Cosman                        |  |
|           | 23               | US-6,434,507                               | 08-13-02         | Clayton et al.                |  |
|           | 24               | US-6,661,617 B1                            | 08-26-03         | Crampton                      |  |
|           |                  |  |                  |                               |  |
|           |                  |  |                  |                               |  |
|           |                  |  |                  |                               |  |
|           |                  |  |                  |                               |  |

| FOREIGN PATENT DOCUMENTS |                          |  |                              |   |   |    |
|--------------------------|--------------------------|--|------------------------------|---|---|----|
| Examiner<br>Initials*    | Cite<br>No. <sup>1</sup> | Foreign Patent Document  Country Code <sup>3</sup> – Number <sup>4</sup> – Kind Code <sup>5</sup> (if known) | Publication Date<br>MM-DD-YY | Name of Patentee or<br>Application of Cited<br>Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>or Relevant Figures Appear | Τ° |
|                          |                          |  |                              |   |   |    |
|                          |                          |  |                              |   |   |    |

| Examiner's | Date       |  |
|------------|------------|--|
| Signature  | Considered |  |
|            |            |  |

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2.0 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

<sup>\*</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \(^1\) Applicant's unique citation designation number (optional). \(^2\) See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. \(^3\) Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \(^4\) For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \(^5\) Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. \(^6\) Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449B-PTO 10/664,534 **Application Number** September 16, 2003 Filing Date INFORMATION DISCLOSURE **First Named Inventor** Hassan MOSTAFAVI STATEMENT BY APPLICANT 2857 Art Unit Elias Desta **Examiner Name** (use as many sheets as necessary) VM7010733002 Sheet 1 Attorney Docket Number of

|                                       |      | NON PATENT LITERATURE DOCUMENTS   |          |
|---------------------------------------|------|---|----------|
| Examiner                              | Cite | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, | T        |
| Initials*                             | No.1 | serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher city and/or country where published               |          |
|                                       | 1.   | BARONI, G. and G. FERRIGNO "Real-time Motion Analysis for Definition and Control of Patient Position in                               | [        |
|                                       | ļ    | Radiotherapy" SPIE 0-81942084-0/96 2709:506-515   |          |
|                                       | 2.   | GERIG, L.H. et al."The Development and Clinical Application of a Patient Position Monitoring System" Ottawa                           |          |
|                                       |      | Regional Cancer Centre, General Division, 501 Smyth Rd., Ottawa, Ontario, Canada K1H 8L6; National Research                           |          |
|                                       |      | Council, IIT, Ottawa, Ontario, Canada K1A OR6; SPIE Videometrics III (1994) 2350:59-72  | _        |
|                                       | 3.   | LOPRESTI, B.J. et al. "Implementation and Performance of an Optical Motion Tracking System for High Resolution                        |          |
|                                       |      | Brain PET Imaging" IEEE Transactions on Nuclear Science (December, 1999) 46(6):2065-2067  | L        |
|                                       | 4.   | MAGERAS, G. et al. "Initial Clinical Evaluation of a Respiratory Gating Radiotherapy System" in 22nd Annual EMBS                      |          |
|                                       |      | International Conference Chicago, IL (July 23-28, 2000) pp. 2124-2127   | L        |
| •                                     | 5.   | SURAMO, M. P. et al. "Cranio-Caudal Movements of the Liver, Pancreas and Kidneys on Respiration" Acta Radiol.                         |          |
|                                       |      | Diagn. (1984) 2:129-131   | L        |
|                                       | 6.   | YORKE, Ellen et al. "Respiratory Gating of Sliding Window IMRT" in 22nd Annual EMBS International Conference                          |          |
|                                       |      | Chicago, IL (July 23-28, 2000) pp. 2118-2121  |          |
|                                       | 7.   | Preliminary Search Brochure entitled "Kinematic Measurement Systems" by Qualisys printed 4/4/94                                       |          |
|                                       | 8.   |   |          |
|                                       | 9.   |   | L        |
|                                       | 10.  |   | L        |
|                                       | 11.  |   | L        |
|                                       | 12.  |   |          |
|                                       | 13.  |   | <u> </u> |
|                                       | 14.  |   |          |
|                                       | 15.  |   |          |
|                                       | 16.  |   |          |
|                                       | 17.  |   |          |
| ,                                     | 18.  |   |          |
|                                       | 19.  |   |          |
|                                       | 20.  |   |          |
| · · · · · · · · · · · · · · · · · · · | 21.  |   | Г        |
| · · · · · · · · · · · · · · · · · · · | 22.  |   | Г        |

| Examiner's | Date       |  |
|------------|------------|--|
| Signature  | Considered |  |
| o.ga.a.o   | 00.0.000   |  |

<sup>\*</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. This information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this formation of time you require to the complete this formation of time you require to the complete this formation of time you require to the complete this formation of time you require to the complete this formation of time you require to the complete t Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.